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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,963	12/05/2000	Heike Wild	IN-12062	9810

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EXAMINER

BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
1711	12

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/701,963	WILD ET AL.	
	Examiner	Art Unit	
	Melanie D. Bissett	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 22 August 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-7 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). 7.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) Other: \_\_\_\_\_

## DETAILED ACTION

1. The claim objections and the rejections based on 35 USC 102 and 35 USC 112 have been withdrawn based on the applicant's amendment. However, rejections based on 35 USC 103 have been altered as necessitated by the amendment.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy in view of Cline et al.

4. From a previous Office action:

8. Kennedy discloses a composite structure having two outer metal layers and an intermediate elastomer core layer, where the core layer has a modulus of elasticity greater than 250 MPa, tensile and compressive strengths greater than 20 MPa, and an adhesion of at least 3 MPa (abstract). Preferably, the elastomer is compact (col. 2 lines 50-54) and has a modulus of elasticity greater than 275 MPa (col. 3 lines 56-63), an elongation greater than 50% (col. 4 lines 12-15), and an adhesion to the metal layers of at least 6 MPa (col. 4 lines 26-30). Figure 3 shows a structure having two outer metal layers of 10-mm thickness and a core polyurethane layer of 50-mm thickness. Polyurethanes of the invention are made by reacting an isocyanate with a polyether or polyester polyol, thus teaching reaction products of polyether polyols with isocyanates. The reference teaches a method of fabricating the composites by casting or injecting the elastomer into a cavity formed between the two outer metal layers (col. 5 lines 17-21). Thus, the reference teaches a process of preparing polyisocyanate polyaddition products between two metal layers.

5. Kennedy applies as above, lacking express mention of the composition of the polyisocyanates and polyether polyols to be used in the invention. Cline teaches highly elastic polyurethane adhesives (abstract) for applications to flexible substrates, where the adhesives can be applied in liquid form and cured so that the adhesives do not lose their adhesive strength at higher temperatures (col. 1 lines 48-60). It is taught that the

adhesives of the invention adhere well to metal substrates (col. 7 line 56-col. 8 line 2).

Example 6 shows the reaction of an isocyanate mixture containing polymethylene poly(phenylisocyanate) and diphenylmethane diisocyanate monomers with a polyether polyol blend. The polyol blend comprises 40% by weight of Polyol <sup>A</sup><sub>D</sub> having a functionality of 2 and a molecular weight of 4000 and 60% by weight of Polyol <sup>A</sup><sub>D</sub> having a functionality of 3 and a molecular weight of 2000. The molecular weight and functionality of the polyether diol blend affect the softening point of the elastomers (table, col. 11). Therefore, it is the examiner's position that it would have been *prima facie* obvious to use polyurethane compositions according to Cline's teaching in Kennedy's invention to provide adhesive elastomers usable with flexible substrates having improved adhesive strength at high temperatures.

6. From a previous Office action:

11. Kennedy applies as above, failing to teach the requirement of fillers in a specified range. However, the reference does indicate that fillers may be included in the elastomer layer to reduce the thermal coefficient and reduce cost of the layer (col. 4 lines 39-46). Therefore, it is the examiner's position that it would have been *prima facie* obvious to include fillers in any amount necessary to reduce the thermal coefficient and the cost of the elastomer layer.

14. Kennedy also lacks mention of a blend of three polyols making the polyether polyol component. Cline applies as above, also noting the use of up to 10% of chain extenders having functionalities of 1.5-3 (abstract). The mention is made of the use of 1,10-decanediol, a compound with a hydrocarbon skeleton of 10 carbon atoms (col. 6 lines 7-22). Although the compound would be chosen from a list, the noted chain extenders are given as compounds that would each contribute to an equally improved urethane elastomer adhesive. Therefore, it is the examiner's position that it would have been *prima facie* obvious to include in the polyether polyol component a chain extender having at least 10 carbon atoms. Motivation for including this compound in a polyether component of Kennedy's invention would have been to provide an elastomer having equally improved adhesive strength at high temperatures.

***Double Patenting***

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

9. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3-6 of U.S. Patent No. 09/701,905. Although the conflicting claims are not identical, they are not patentably distinct from each other because more narrow claims 1 and 2-6 of the copending application anticipate the broader present claims 1-6. Copending claim 1 parallels present claim 2, where copending claim 1 also specifies certain properties of layer (ii) of

the composite element. It is the examiner's position that, since the materials used to form layer (ii) of the composite structures are the same, the resulting layers would inherently possess the same properties. Thus, although the claims are not identical, they are not patentably distinct from one another. The limitations of present claims 4-7 parallel those of copending claims 3-6.

***Response to Amendment***

11. In response to the applicant's argument that Kennedy does not teach the specific filler level claimed by the applicant, it is noted that it has been the examiner's position to add a sufficient amount of the filler to reduce the thermal coefficient and cost of the elastomer layer. It is noted that the applicant claims a broad range of filler amount. Since Kennedy notes the affects of the addition of the filler, one skilled in the art would recognize that changing the filler levels would alter the noted properties of the elastomer material. It is the examiner's position that undue experimentation would not be required to vary the filler amounts in the elastomer to optimize the thermal coefficient and reduce the overall cost of the material. Thus, the use of any sufficient amount of filler would be obvious.

12. Regarding the applicant's argument that the polyurethane adhesives are completely different from a polyurethane elastomer, it is noted that Cline frequently refers to the elastic properties of the adhesives of the invention, beginning in the abstract. Cline's adhesives are highly elastic and flexible to allow the materials to be coated onto a variety of flexible substrates. Although Cline may only exemplify

thicknesses of 1/8", there is no suggestion that a thicker application of the elastic adhesive would reduce the adhesive or elastic properties of the material. Kennedy supplies the teaching of using an elastic polyurethane at thicknesses of 20-100 mm. It is therefore the examiner's position that the combination of references is supported by the disclosures. Kennedy requires an elastic polyurethane material to adhere to two metal substrates, and Cline teaches a highly elastic polyurethane adhesive useful for metal substrates.

13. In response to the applicant's argument that neither Kennedy nor Cline teach present claim 1, it is noted that a third reference has been combined with the references to teach the polyisocyanate mixture. Cline suggests the polyol blend, as in example 2, without a polyisocyanate mixture.

14. Regarding the applicant's argument that Cline teaches that no more than 10% of a component such as 1,10-decanediol may be used in the polyol component, it is noted that the addition of 10% of 1,10-decanediol would fit the applicant's requirement of (b3), having 10 carbons and a functionality of 2.

15. The double patenting rejection has been altered to encompass the claim amendments.

### ***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (703) 308-6539. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

mdb  
November 15, 2002

James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700